

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application.

Claims 1-3 (Cancelled)

4. (Previously Presented) A compound comprising:

a polymeric chain;

an acid labile group attached to the polymeric chain; and

at least one hydrophilic group attached to the acid labile group,

wherein the at least one hydrophilic group comprises a sulphydryl group.

Claims 5-14 (Cancelled)

15. (Previously Presented) A compound comprising:

a polymeric chain;

a dissolution inhibitor attached to the polymeric chain to inhibit dissolution of the polymeric chain in a developer; and

at least one hydrophilic group attached to the dissolution inhibitor,

wherein the at least one hydrophilic group comprises a sulphydryl group.

Claims 16-29 (Cancelled)

30. (Previously Presented) The compound of claim 4, wherein the at least one hydrophilic group comprises a hydroxyl group.

31. (Previously Presented) The compound of claim 4, wherein the at least one hydrophilic group comprises a plurality of hydrophilic groups.
32. (Previously Presented) The compound of claim 4, wherein the acid labile group comprises an organic group having the sulphydryl group attached thereto.
33. (Previously Presented) The compound of claim 32, wherein the organic group comprises an alicyclic group.
34. (Previously Presented) The compound of claim 33, wherein the alicyclic group comprises a ring selected from a monocyclic ring and a polycyclic ring.
35. (Currently Amended) The compound of claim 33, wherein the alicyclic group comprises a group selected from [[C₁₋₆]] cyclopentyl, [[C₁₋₆]] cyclohexyl, [[C₁₋₆]] adamantly, and norbornyl.
36. (Previously Presented) The compound of claim 33, wherein the alicyclic group comprises methyl adamantly.
37. (Previously Presented) The compound of claim 4, wherein the polymeric chain comprises a (meth)acrylate chain.
38. (Previously Presented) A composition comprising:
the compound of claim 4; and
a radiation sensitive acid generator capable of generating an acid if exposed to radiation.
39. (Previously Presented) A method comprising:
applying a layer of the composition of claim 38 over a substrate;

heating the applied layer;

after said heating the layer, exposing the layer to patterned radiation by transmitting actinic radiation to the layer through a patterned mask;

heating the exposed layer; and

after said heating the exposed layer, developing the exposed layer by contacting the exposed layer with a developer and then removing the developer.

40. (Previously Presented) The compound of claim 15, wherein the at least one hydrophilic group comprises a hydroxyl group.

41. (Previously Presented) The compound of claim 15, wherein the dissolution inhibitor comprises an alicyclic group.

42. (Previously Presented) The compound of claim 41, wherein the alicyclic group comprises a ring selected from a monocyclic ring and a polycyclic ring.

43. (Currently Amended) The compound of claim 42, wherein the alicyclic group comprises one selected from [[C₁₋₆]] cyclopentyl, [[C₁₋₆]] cyclohexyl, [[C₁₋₆]] adamantyl, and a group including norbornyl.

44. (Previously Presented) A composition comprising:

the compound of claim 15; and

a radiation sensitive acid generator capable of generating an acid if exposed to radiation.

45. (Previously Presented) A method comprising:

applying a layer of the composition of claim 44 over a substrate;

heating the applied layer;

after said heating the layer, exposing the layer to patterned radiation by transmitting actinic radiation to the layer through a patterned mask;

heating the exposed layer; and

after said heating the exposed layer, developing the exposed layer by contacting the exposed layer with a developer and then removing the developer.

Claims 46-54 (Cancelled)